

NOTES AND NEWS.

M. GASTON BONNIER has been honored with the title "Chevalier de la legion d'honneur."

DR. W. G. FARLOW is publishing in *Garden and Forest* a series of illustrated papers entitled "Notes for Mushroom-eaters."

DR. PAUL SORAUER has retired from the directorship of the Physiological Experiment Station at Proskau, and Dr. R. Aderhold has taken his place.

MR. M. S. BEBB and DR. THOS. MORONG are both in Florida on account of their health; the former at Clearwater Harbor, the latter at Jacksonville.

DR. OTTO KUNTZE has spent the winter in Capetown, "in search of health," as he writes. He intends to go over Capeland, Transvaal to Natal, and return to Germany next May.

MR. C. R. ORCUTT has begun an extensive collecting trip, in which he will be engaged until fall, devoted chiefly to the *Cactaceæ*. He is now in the Colorado Desert, from whence he will go to the Mojave Desert, and then east to Texas and to the City of Mexico.

BULLETIN 37 of the Wisconsin Experiment Station, prepared by Professor E. S. Goff, gives a very full account of the Russian thistle, with a fine illustration, among others, of a plant three feet in diameter found by Mr. L. S. Cheney, growing within a mile of the city of Madison.

J. K. HASSKARL, once joint director of the botanic garden at Buitenzorg, Java, distinguished through his introduction of the *Cinchona* culture there, died at Cleve on the 5th of January in moderate circumstances although he had provided his native country with a yearly revenue reckoned by millions.—*Münch. allg. Zeitung*.

AT THE MEETING of the Botanical Society of Munich on January eighth Dr. F. Brand described and illustrated by herbarium specimens the forms of the leaves of *Nymphæaceæ*. He finds three sorts readily distinguishable. These are the submersed leaves, the floating leaves and the aerial leaves. These are not only structurally but functionally different.

PROF. L. H. PAMMEL is the author of the following articles published in the Transactions of the Iowa Horticultural Society for 1892, recently distributed: Climate and its effects on the quality of apples. Crossing of cucurbits, Fruit rots and their prevention, Fungous diseases of the grape. The volume includes the proceedings of the Iowa Academy of Science for 1892 (113 pp.), also containing papers by Prof. Pammel.

IN *Le Botaniste* (Jan. 15), the editor, M. Dangeard, presents a paper, illustrated by four plates, on the sexual reproduction of fungi; in

which the general question of sexual reproduction in algæ and fungi is first considered, followed by an account of the results of investigation into the structure of Ustilagineæ. As to the systematic position of Ustilagineæ the author thinks that they, with the Uredineæ, form a transition group, leading from the Phycomycetes on the one hand to Basidiomycetes and Ascomycetes on the other. To this transition group the name Mesomycetes is given, already suggested by Frank.

IN THE *Kew Bulletin* for January the Herbarium begins the publication of a series of novelties from tropical Africa. But three volumes of Oliver's "Flora of Tropical Africa" (1868-1877) have appeared, and there has been but little time to prosecute the work further, the whole staff having been employed in determining the rapidly increasing collections and in assisting Sir Joseph Hooker in his "Flora of British India," now approaching completion. Now, however, the "Flora of Tropical Africa" is to be pushed to completion, but in order to secure priority for names the present series of descriptions of new species are to be published in the *Kew Bulletin*. This first fascicle contains twenty-two species of Apocynaceæ, by O. Stapf; ten Gentianeæ, twenty-two Boragineæ, and ten Bignoniaceæ, by J. G. Baker.

IN THE March number of *Harper's Monthly Magazine* there is an admirable article by W. Hamilton Gibson on "the welcomes of the flowers" to insect visitors, illustrated by many of his unrivaled sketches. Even into his diagrams he puts an artistic feeling which almost makes them pictures, while his drawings are, as every one knows, simply imitable. After sketching the history of the knowledge of the pollination he describes charmingly, with almost no technicality, the modes of insect pollination in *Salvia officinalis*, *Kalmia latifolia*, *Andromeda ligustrina*, *Iris versicolor*, *Collinsonia Canadensis*, *Rudbeckia hirta*, *Arum maculatum* (after Müller) and *Pogonia ophioglossoides*. We predict that some of these illustrations will become classics, and doubt not copies will adorn many a chart and text-book. May their tribe increase!

DR. ARNOLD DODEL-PORT has begun the publication through Cæsar Schmidt, of Zürich, of a new set of wall charts entitled *Der biologische Atlas der Botanik*. Those who possess the earlier set (published between 1878 and 1883 under the title, *Anatomisch-physiologischen Atlas der Botanik*) and who know its excellences will be minded to order the new work. The sheets of the present atlas are twice the size of the preceding, viz.: 84×120 cm, which will be a decided improvement. High schools and academies which do not desire the sheets dealing with the more recondite matters can purchase what they can use. For example in the first series of seven sheets, dealing with *Iris sibirica*, the first four, on (1) bees and flowers, (2) color and the secretion of honey, (3) structure and development of the organs of fructification, (4) structure and contents of the ripe fruit and seed, can be ordered, and the remaining three, on (5) developmental history of the ovule, (6) the processes of fertilization, (7) germination of the seed, can be left out. We are glad to commend this work and hope for it a wide sale in this country. The price is very reasonable, viz.: M. 40 for the first series of seven sheets.